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# Maine Agricultural Experiment Station

BULLETIN No. 63.

APRIL, 1900.

## FEEDING STUFF INSPECTION.

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This Bulletin contains the analyses of samples of Feeding Stuffs collected by the inspectors in February and March, 1900.

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Requests for the Bulletins should be addressed to the  
AGRICULTURAL EXPERIMENT STATION,  
Orono, Maine.

# MAINE

## AGRICULTURAL EXPERIMENT STATION

### ORONO, MAINE.

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## FEEDING STUFF INSPECTION.

CHAS. D. WOODS, Director.

J. M. BARTLETT, chemist in charge of inspection analyses.

### CHIEF REQUIREMENTS OF THE LAW.

The points of the law of most interest to dealer and consumer are:

*Kinds of Feed coming within the Law.* The law applies to *all feeding stuffs except* hays and straws; whole seeds and meals of wheat, rye, barley, oats, Indian corn, buckwheat and broom corn; wheat, buckwheat and rye brans or middlings *not mixed with other substances*, but sold separately, as distinct articles of commerce.\*

*Inspection tax and tag.* To meet the expenses of inspection, a tax of ten cents per ton must be paid to the Director of the Maine Agricultural Experiment Station who is required to furnish a tag stating that all charges have been paid. This tag, which bears the Director's signature, shows that the tax has been paid but is *not a guarantee of the quality of the goods*.

*The brand.* Each package of feeding stuff included within the law shall have affixed the inspection tax tag and shall also bear, conspicuously printed; the number of net pounds contained in the package, the name or trade mark under which it is sold, the name of the manufacturer or shipper, the place of manufacture, the place of business or manufacture or shipper, the percentage of crude protein, the percentage of crude fat. These statements may be printed directly on the bag, on a tag attached to the package, or on the back of the inspection tax tag furnished by the Director of the Station. The quality of the goods is guaranteed by the manufacturer, importer or dealer, *and not by the Station*. The samples collected and analyzed by the Station show whether the goods are up to guarantee or not.

The goods must carry the inspection tax tag and the brand before they can be legally offered for sale in the State. It will not answer to affix tags at the time the goods are sold.

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\*All milling offals except bran or middlings come under the requirement of the law. See page 88 of this Bulletin.

## MANUFACTURERS AND PLACE OF SAMPLING.

Station number.	Manufacturer or Jobber.	Manufactured at	Sampled at
8848	Chapin & Co .....	St. Louis, Mo... ..	Rumford Falls .....
8874	Chapin & Co .....	St. Louis, Mo... ..	Bangor .....
8881	Chapin & Co .....	St. Louis, Mo... ..	Bangor .....
8893	Chapin & Co .....	St. Louis, Mo... ..	Bangor .....
8906	Chapin & Co .....	St. Louis, Mo... ..	Portland .....
8907	Chapin & Co .....	St. Louis, Mo... ..	Portland .....
8908	Chapin & Co .....	St. Louis, Mo... ..	Saco .....
8909	Chapin & Co .....	St. Louis, Mo... ..	Yarmouth .....
8910	Chapin & Co .....	St. Louis, Mo... ..	Westbrook .....
8944	Chapin & Co .....	St. Louis, Mo... ..	Brunswick .....
8945	Chapin & Co .....	St. Louis, Mo... ..	Freeport .....
8979	Chapin & Co .....	St. Louis, Mo... ..	Auburn .....
8980	Chapin & Co .....	St. Louis, Mo... ..	Lewiston .....
8981	Chapin & Co .....	St. Louis, Mo... ..	Augusta .....
8982	Chapin & Co .....	St. Louis, Mo... ..	Richmond .....
8983	Chapin & Co .....	St. Louis, Mo... ..	Pittsfield .....
8987	The American Cotton Oil Co ...	Memphis, Tenn*...	Camden .....
8940	The American Cotton Oil Co ...	Memphis, Tenn*...	Fryeburg .....
8939	The American Cotton Oil Co ...	Little Rock, Ark...	Brunswick .....
9042	The American Cotton Oil Co ...	Jackson, Tenn .....	Hiram .....
9042	The American Cotton Oil Co ...	Jackson, Tenn .....	Corinna .....
8901	F. W. Brod� & Co .....	Memphis, Tenn...	Stroudwater ... ..
8994	F. W. Brod� & Co .....	Memphis, Tenn...	Auburn .....
8995	F. W. Brod� & Co .....	Memphis, Tenn ..	Pittsfield .....
9041	F. W. Brod� & Co .....	Memphis, Tenn...	Foxcroft .....
8900	E. B. Williams & Co .....	Memphis, Tenn...	Portland .....
8941	E. B. Williams & Co .....	Memphis, Tenn...	Bridgton .....
8942	E. B. Williams & Co .....	Memphis, Tenn...	Fryeburg .....
8943	E. B. Williams & Co .....	Memphis, Tenn...	Brownfield .....
8988	E. B. Williams & Co .....	Memphis, Tenn...	Bowdoinham .....
8989	E. B. Williams & Co .....	Memphis, Tenn...	Lewiston .....
8990	E. B. Williams & Co .....	Memphis, Tenn...	South Paris .....
8991	E. B. Williams & Co .....	Memphis, Tenn...	Newport .....
8992	E. B. Williams & Co .....	Memphis, Tenn...	Norway .....
9035	E. B. Williams & Co .....	Memphis, Tenn...	Skowhegan .....
9039	E. B. Williams & Co .....	Memphis, Tenn...	Hampden .....
8866	S. A. & J. H. True Co .....	.....	Boothbay .....
8872	S. A. & J. H. True Co .....	.....	Portland .....
8880	S. A. & J. H. True Co .....	.....	Portland .....
8902	S. A. & J. H. True Co .....	.....	Portland .....
8899	The Southern Cotton Oil Co ....	.....	Biddeford .....
8978	The Southern Cotton Oil Co ....	.....	Augusta .....
8917	Butler Breed Co .....	.....	Saco .....
8946	Paris Flouring Co .....	Memphis, Tenn...	Freeport .....
8947	Humphreys, Goodwin & Co ....	Memphis, Tenn...	South Windham ..
8993	Humphreys, Goodwin & Co ....	Memphis, Tenn...	Auburn ..
8984	J. E. Soper & Co .....	.....	Lewiston ..
8985	J. E. Soper & Co .....	.....	Bowdoinham .....

\* Hanover Mill.



## ANALYSES OF SAMPLES.

Name of Feed.	PROTEIN.		FAT.		Station number.
	Found — per cent.	Guaranteed — per cent.	Found — per cent.	Guaranteed — per cent.	
Cotton Seed Meal .....	46.50	43.00	*	9.00	8848
Cotton Seed Meal .....	45.38	43.00	8.95	9.00	8874
Cotton Seed Meal .....	45.50	43.00	9.21	9.00	8881
Cotton Seed Meal .....	43.56	43.00	12.12	9.00	8893
Cotton Seed Meal .....	45.69	43.00	9.77	9.00	8906
Cotton Seed Meal .....	41.69	43.00	16.52	9.00	8907
Cotton Seed Meal .....	43.06	43.00	12.40	9.00	8908
Cotton Seed Meal .....	43.94	43.00	12.26	9.00	8909
Cotton Seed Meal .....	42.56	43.00	14.53	9.00	8910
Cotton Seed Meal .....	45.50	43.00	9.84	9.00	8944
Cotton Seed Meal .....	44.50	43.00	11.74	9.00	8945
Cotton Seed Meal .....	47.63	43.00	10.69	9.00	8979
Cotton Seed Meal .....	46.94	43.00	10.14	9.00	8980
Cotton Seed Meal .....	47.38	43.00	10.06	9.00	8981
Cotton Seed Meal .....	43.81	43.00	12.21	9.00	8982
Cotton Seed Meal .....	47.75	43.00	9.32	9.00	8983
Prime Cotton Seed Meal .....	45.31	43.00	12.03	9.00	8987
Prime Cotton Seed Meal .....	43.44	43.00	10.60	9.00	8940
Prime Cotton Seed Meal .....	43.38	43.00	9.80	9.00	8939
Prime Cotton Seed Meal .....	47.25	43.00	8.48	9.00	8938
Prime Cotton Seed Meal .....	47.63	43.00	9.17	9.00	9042
Owl Brand Pure Cotton Seed Meal .....	46.19	43.00	14.34	9.00	8901
Owl Brand Pure Cotton Seed Meal .....	48.94	43.00	10.99	9.00	8994
Owl Brand Pure Cotton Seed Meal .....	47.81	43.00	9.04	9.00	8995
Owl Brand Pure Cotton Seed Meal .....	49.13	43.00	11.13	9.00	9041
Daisy Brand Cotton Seed Meal .....	46.00	43.00	12.11	9.00	8900
Daisy Brand Cotton Seed Meal .....	46.69	43.00	8.34	9.00	8941
Daisy Brand Cotton Seed Meal .....	44.19	43.00	8.68	9.00	8942
Daisy Brand Cotton Seed Meal .....	47.31	43.00	9.11	9.00	8943
Daisy Brand Cotton Seed Meal .....	45.44	43.00	12.17	9.00	8988
Daisy Brand Cotton Seed Meal .....	45.75	43.00	8.68	9.00	8989
Daisy Brand Cotton Seed Meal .....	47.38	43.00	8.75	9.00	8990
Daisy Brand Cotton Seed Meal .....	46.75	43.00	8.39	9.00	8991
Daisy Brand Cotton Seed Meal .....	47.69	43.00	9.71	9.00	8992
Daisy Brand Cotton Seed Meal .....	44.44	43.00	12.57	9.00	9038
Daisy Brand Cotton Seed Meal .....	44.56	43.00	8.21	9.00	9039
Prime Cotton Seed Meal .....	23.50	43.00	8.11	9.00	8866
Prime Cotton Seed Meal .....	24.25	43.00	8.03	9.00	8872
Prime Cotton Seed Meal .....	25.63	43.00	7.54	9.00	8880
Prime Cotton Seed Meal .....	22.19	43.00	7.14	9.00	8902
Prime Finely Ground Cotton Seed Meal .....	47.25	43.00	9.28	9.00	8899
Prime Finely Ground Cotton Seed Meal .....	46.19	43.00	10.17	9.00	8978
Cotton Seed Meal .....	45.50	43.00	11.30	9.00	8917
Prime Memphis Cotton Seed Meal .....	45.38	43.00	10.12	9.00	8946
Dixie Brand Cotton Seed Meal .....	44.75	43.00	8.33	9.00	8947
Dixie Brand Cotton Seed Meal .....	44.13	43.00	9.67	9.00	8993
Cotton Seed Meal .....	44.25	43.00	9.14	9.00	8984
Cotton Seed Meal .....	44.13	43.00	12.72	9.00	8985

\* Not determined.

## MANUFACTURERS—Continued.

Station number.	Manufacturer or Jobber.	Manufactured at	Sampled at
8986	J. E. Soper & Co .....	.....	Norway.....
8987	J. E. Soper & Co .....	.....	Richmond .....
9040	J. E. Soper & Co .....	.....	Winterport.....
8904	J. E. Soper & Co .....	.....	Saco .....
8905	J. E. Soper & Co .....	.....	Portland .....
8850	.....	.....	Palmyra.....
8996	.....	.....	Pittsfield .....
8871	S. W. Hamilton .....	.....	Cumberland Junc. ....
8903	Matthews & Houston .....	.....	Portland .....
8916	S. A. & J. H. True Co .....	.....	Biddeford .....
8856	The Glucose Sugar Refining Co. ....	.....	Pittsfield .....
8857	The Glucose Sugar Refining Co. ....	.....	Portland .....
8861	The Glucose Sugar Refining Co. ....	.....	Portland .....
8862	The Glucose Sugar Refining Co. ....	.....	Portland .....
8875	The Glucose Sugar Refining Co. ....	.....	Bangor .....
8876	The Glucose Sugar Refining Co. ....	.....	South Brewer.....
8882	The Glucose Sugar Refining Co. ....	.....	Bangor .....
8883	The Glucose Sugar Refining Co. ....	.....	Bangor .....
8884	The Glucose Sugar Refining Co. ....	.....	Bangor .....
8914	The Glucose Sugar Refining Co. ....	.....	Biddeford .....
8948	The Glucose Sugar Refining Co. ....	.....	Hiram .....
8949	The Glucose Sugar Refining Co. ....	.....	Rockland.....
8950	The Glucose Sugar Refining Co. ....	.....	Camden .....
8951	The Glucose Sugar Refining Co. ....	.....	Bridgton .....
8952	The Glucose Sugar Refining Co. ....	.....	Brownfield. ....
9000	The Glucose Sugar Refining Co. ....	.....	Auburn .....
9002	The Glucose Sugar Refining Co. ....	.....	Auburn .....
9045	The Glucose Sugar Refining Co. ....	.....	Winterport.....
8913	The Glucose Sugar Refining Co. ....	.....	Saco .....
8892	The Glucose Sugar Refining Co. ....	.....	Oldtown.....
8998	The Glucose Sugar Refining Co. ....	.....	Pittsfield .....
8999	The Glucose Sugar Refining Co. ....	.....	Lewiston .....
8997	The Glucose Sugar Refining Co. ....	.....	Augusta .....
9001	The Glucose Sugar Refining Co. ....	.....	Auburn .....
8911	Charles Pope Glucose Co .....	.....	Saco .....
8912	Charles Pope Glucose Co .....	.....	Stroudwater .....
8953	Charles Pope Glucose Co .....	.....	Bath .....
8954	Charles Pope Glucose Co .....	.....	Brunswick .....
9003	Charles Pope Glucose Co .....	.....	Auburn .....
9004	Charles Pope Glucose Co .....	.....	Lewiston .....
8915	National Starch Manf'g Co.....	Des Moines, Iowa .	Portland .....
8955	National Starch Manf'g Co.....	Des Moines, Iowa .	Freeport .....
8956	National Starch Manf'g Co.....	Des Moines, Iowa .	South Windham ...
9005	National Starch Manf'g Co.....	Des Moines, Iowa .	Richmond .....
9006	National Starch Manf'g Co.....	Des Moines, Iowa .	Auburn .....
9007	National Starch Manf'g Co .....	Des Moines, Iowa .	Norway.....
9008	National Starch Manf'g Co.....	Des Moines, Iowa .	Lewiston .....
9009	National Starch Manf'g Co.....	Des Moines, Iowa .	Monmouth .....



## ANALYSES—Continued.

Name of Feed.	PROTEIN.		FAT.		Station number.
	Found— per cent.	Guaranteed— per cent.	Found— per cent.	Guaranteed— per cent.	
Cotton Seed Meal .....	44.13	43.00	10.32	9.00	8986
Cotton Seed Meal ....	42.50	43.00	8.69	9.00	8987
Cotton Seed Meal .....	44.50	43.00	10.64	9.00	9040
Cotton Seed Meal .....	45.19	43.00	9.80	9.00	8904
Cotton Seed Meal .....	44.50	43.00	9.03	9.00	8905
Cotton Seed Meal .....	45.44	No guar.	14.05	No guar.	8850
Cotton Seed Meal .....	45.06	No guar.	12.37	No guar.	8996
Cotton Seed Meal .....	27.13	No guar.	*	No guar.	8871
Sea Island Cotton Seed Meal....	25.44	No guar.	6.91	No guar.	8903
Cotton Seed Meal .....	23.63	No guar.	7.99	No guar.	8916
Chicago Gluten Meal .....	34.19	38.00	3.87	2.00	8856
Chicago Gluten Meal .....	38.56	38.00	3.44	2.00	8857
Chicago Gluten Meal .....	39.38	38.00	3.05	2.00	8861
Chicago Gluten Meal .....	39.56	38.00	2.68	2.00	8862
Chicago Gluten Meal .....	34.50	38.00	4.61	2.00	8875
Chicago Gluten Meal .....	33.25	38.00	4.33	2.00	8876
Chicago Gluten Meal .....	35.38	38.00	4.48	2.00	8882
Chicago Gluten Meal .....	33.38	38.00	3.88	2.00	8883
Chicago Gluten Meal .....	35.81	38.00	4.16	2.00	8884
Chicago Gluten Meal .....	39.13	38.00	2.58	2.00	8914
Chicago Gluten Meal .....	34.25	38.00	4.49	2.00	8948
Chicago Gluten Meal .....	39.75	38.00	3.32	2.00	8949
Chicago Gluten Meal .....	34.25	38.00	4.61	2.00	8950
Chicago Gluten Meal .....	33.63	38.00	4.83	2.00	8951
Chicago Gluten Meal .....	34.13	38.00	3.73	2.00	8952
Chicago Gluten Meal .....	33.88	38.00	4.51	2.00	9000
Chicago Gluten Meal .....	34.88	38.00	3.38	2.00	9002
Chicago Gluten Meal .....	38.31	38.00	3.04	2.00	9045
Chicago Gluten Meal .....	32.94	38.00	4.14	2.00	8913
Chicago Gluten Meal .....	33.19	34.20	3.58	3.75	8892
Chicago Gluten Meal .....	34.06	34.20	3.61	3.75	8998
Chicago Gluten Meal .....	38.00	34.20	3.74	3.75	8999
Chicago Gluten Meal .....	36.88	36.60	2.88	3.37	8997
Chicago Gluten Meal .....	36.31	36.00	4.36	3.37	9001
Cream Gluten Meal .....	32.63	34.12	3.29	3.20	8911
Cream Gluten Meal .....	34.19	34.12	2.57	3.20	8912
Cream Gluten Meal .....	33.00	34.12	1.37	3.20	8953
Cream Gluten Meal .....	32.13	34.12	1.64	3.20	8954
Cream Gluten Meal .....	32.13	34.12	1.13	3.20	9003
Cream Gluten Meal .....	32.69	34.12	2.58	3.20	9004
King Gluten Meal .....	31.06	32.00	12.39	16.00	8915
King Gluten Meal .....	31.50	32.00	10.73	16.00	8955
King Gluten Meal .....	35.69	32.00	2.04	16.00	8956
King Gluten Meal .....	30.44	32.00	3.13	16.00	9005
King Gluten Meal .....	33.94	32.00	2.37	16.00	9006
King Gluten Meal .....	36.50	32.00	2.31	16.00	9007
King Gluten Meal .....	38.44	32.00	2.86	16.00	9008
King Gluten Meal .....	34.94	32.00	3.22	16.00	9009

\* Not determined.

## MANUFACTURERS—Continued.

Station number.	Manufacturer or Jobber.	Manufactured at	Sampled at
9044	National Starch Manf'g Co .....	Des Moines, Iowa..	Corinna .....
8851	The Glucose Sugar Refining Co.	Rockford, Ill .....	Bangor .....
8852	C. B. Cummings & Son.....	.....	Norway.....
8849	Manger L. O. Co .....	Toledo, Ohio .....	Orono.....
8930	S. A. & J. H. True Co ..	.....	Portland ..
8960	S. A. & J. H. True Co.....	.....	Bridgton .....
8958	Mayflower Mills.....	Fort Wayne, Ind ..	Bath .....
8959	American Linseed Co .....	South Chicago, Ill..	Fryeburg .....
8957	The Cleveland Linseed Oil Co..	.....	Rockland .....
9013	The Cleveland Linseed Oil Co..	.....	Winthrop .....
9014	The Cleveland Linseed Oil Co..	.....	Norway .....
9015	The Cleveland Linseed Oil Co..	.....	Lewiston. ....
9010	Not named .....	.....	Newport.....
9011	Not named .....	.....	Monmouth .....
9043	Not named .....	.....	Skowhegan .....
9012	Not named .....	.....	Auburn .....
8885	The American Cereal Co .....	Chicago, Ill .....	Bangor ..
8918	The American Cereal Co .....	Chicago, Ill .....	Portland .....
8919	The American Cereal Co .....	Chicago, Ill .....	Portland .....
8920	The American Cereal Co .....	Chicago, Ill .....	Saco .....
8961	The American Cereal Co .....	Chicago, Ill .....	Fryeburg ....
8962	The American Cereal Co .....	Chicago, Ill .....	South Windham...
9018	The American Cereal Co .....	Chicago, Ill .....	Richmond .....
9019	The American Cereal Co .....	Chicago, Ill .....	Bethel .....
9020	The American Cereal Co .....	Chicago, Ill .....	Lewiston .....
9046	The American Cereal Co .....	Chicago, Ill .....	Skowhegan .....
9047	The American Cereal Co .....	Chicago, Ill .....	Belfast .....
8891	The H-O Co .....	Buffalo, N. Y .....	Oldtown.....
8925	Dock & Coal Co... ..	Plattsburgh, N. Y..	Portland .....
8926	S. A. & J. H. True Co .....	.....	Portland .....
8894	Not named .....	.....	Oldtown .....
8922	The American Cereal Co .....	Chicago, Ill .....	Portland .....
8974	The American Cereal Co .....	Chicago, Ill .....	Readfield Depot...
8924	W. H. Haskell & Co.....	Toledo, Ohio .....	Portland .....
8869	The H-O Co .....	Buffalo, N. Y .....	Greenville .....
8921	The American Cereal Co .....	Chicago, Ill .....	Westbrook .....
8963	The American Cereal Co .....	Chicago, Ill .....	Brunswick .....
8964	The American Cereal Co .....	Chicago, Ill .....	South Windham ...
8965	The American Cereal Co .....	Chicago, Ill .....	Brownfield .....
9021	The American Cereal Co .....	Chicago, Ill .....	Richmond .....
9048	The American Cereal Co .....	Chicago, Ill .....	Waterville .....
8890	The American Cereal Co .....	Chicago, Ill .....	Bangor .....
8923	The American Cereal Co .....	Chicago, Ill .....	Yarmouth .....
8928	Not named .....	.....	Yarmouth .....
8847	Not named ..	.....	Rumford Falls .....
8870	Not named .....	.....	Orono.....
8887	Not named .....	.....	Bangor .....
8888	Not named .....	.....	Bucksport.....

## ANALYSES—Continued.

Name of Feed.	PROTEIN.		FAT.		Station number.
	Found — per cent.	Guaranteed — per cent.	Found — per cent.	Guaranteed — per cent.	
King Gluten Meal....	37.06	32.00	2.85	16.00	9044
Diamond Gluten Feed .....	26.25	26.20	2.47	2.70	8851
Gluten Feed .....	27.19	26.00	4.13	4.00	8852
Linseed Oil Meal.....	35.38	39.00	7.56	1.50	8849
Linseed Oil Meal.....	29.94	30.00	6.94	7.00	8930
Linseed Oil Meal.....	32.56	36.94	6.15	6.58	8960
Old Process Oil Meal . . . . .	18.88	19.00	6.95	7.00	8958
Linseed Meal .....	38.69	38.00	2.90	3.00	8959
Cleveland Flax Meal .....	38.50	39.00	2.68	1.50	8957
Cleveland Linseed Oil Meal .....	36.75	39.00	2.87	1.50	9013
Cleveland Linseed Oil Meal.....	39.69	39.00	2.23	1.50	9014
Cleveland Linseed Oil Meal .....	36.88	39.00	2.59	1.50	9015
Linseed Oil Meal.....	37.69	38.00	2.63	1.00	9010
Linseed Oil Meal.....	37.56	38.00	2.57	1.00	9011
Linseed Oil Meal.....	37.50	38.00	2.71	1.00	9043
Linseed Oil Meal.....	39.00	No guar.	2.83	No guar.	9012
Victor Corn and Oat Feed .....	8.19	9.46	3.28	3.92	8885
Victor Corn and Oat Feed .....	8.19	9.46	3.14	3.42	8918
Victor Corn and Oat Feed .....	9.19	9.46	4.67	3.42	8919
Victor Corn and Oat Feed .....	8.44	9.46	4.03	3.42	8920
Victor Corn and Oat Feed .....	9.44	9.46	3.42	3.92	8961
Victor Corn and Oat Feed .....	8.50	8.23	3.10	3.00	8962
Victor Corn and Oat Feed .....	9.19	8.23	4.07	3.00	9018
Victor Corn and Oat Feed .....	8.88	8.23	3.43	3.00	9019
Victor Corn and Oat Feed .....	8.13	9.46	3.08	3.92	9020
Victor Corn and Oat Feed ..	9.75	9.46	4.60	3.92	9046
Victor Corn and Oat Feed .....	9.25	8.23	4.20	3.00	9047
H-O Co.'s Dundee Corn and Oat Feed..	8.13	8.38	2.70	2.95	8891
Dandy Corn and Oat Feed .....	9.13	No guar.	4.77	No guar.	8925
Corn and Oat Feed .....	7.50	9.63	3.27	4.23	8926
Oat Chop.....	9.13	8.00	4.55	5.00	8894
Quaker Oat Feed ..	13.38	12.03	3.11	3.49	8922
Quaker Oat Feed .....	10.06	12.03	2.68	3.49	8974
Oat Feed .....	9.50	9.62	4.82	7.60	8924
The H-O Co.'s Dairy Feed .....	16.63	18.00	4.82	4.50	8869
Quaker Dairy Feed .....	14.36	12.03	3.67	3.49	8921
Quaker Dairy Feed .....	14.00	12.03	3.09	2.50	8963
Quaker Dairy Feed .....	14.38	12.03	2.79	2.50	8964
Quaker Dairy Feed .....	13.00	12.03	2.91	3.49	8965
Quaker Dairy Feed .....	13.31	12.03	3.34	3.49	9021
Quaker Dairy Feed .....	14.50	12.03	4.12	2.50	9048
American Poultry Food .....	12.69	No guar.	5.52	No guar.	8890
American Poultry Food .....	13.69	13.96	6.22	5.49	8923
Rice Feed .....	8.75	No guar.	9.03	No guar.	8928
Purity Mixed Feed .....	11.50	No guar.	*	No guar.	8847
Purity Mixed Feed ..	10.63	No guar.	*	No guar.	8870
Purity Mixed Feed .....	12.88	No guar.	4.42	No guar.	8887
Purity Mixed Feed .....	10.56	No guar.	3.80	No guar.	8888

\* Not determined.

## MANUFACTURERS—Concluded.

Station number.	Manufacturer or Jobber.	Manufactured at	Sampled at
8927	Not named .....	.....	Portland .....
8936	Not named .....	.....	Winthrop .....
8969	Not named .....	.....	Brunswick .....
8970	Not named .....	.....	Brunswick .....
8973	Not named .....	.....	Readfield Depot ...
9023	Not named .....	.....	Newport .....
9024	Not named .....	.....	Winthrop .....
9025	Not named .....	.....	Lewiston .....
9049	Not named .....	.....	Foxcroft .....
8877	The Doten Grain Co. ....	.....	South Brewer .....
8878	The Doten Grain Co. ....	.....	Bangor .....
8929	The Doten Grain Co. ....	.....	Biddeford .....
8966	The Doten Grain Co. ....	.....	Hiram .....
8967	The Doten Grain Co. ....	.....	South Windham ...
8968	The Doten Grain Co. ....	.....	Freeport .....
8886	Not named .....	.....	Bangor .....
8961	Not named .....	.....	Fryeburg .....
9027	Not named .....	.....	Norway .....
9028	Not named .....	.....	Bethel .....
9026	Not named .....	.....	South Paris .....
8889	The Bowker Co. ....	Boston, Mass .....	Bangor .....
8932	The Bowker Co. ....	Boston, Mass .....	Portland .....
8933	The Bowker Co. ....	Boston, Mass .....	Portland .....
9016	The Bowker Co. ....	Boston, Mass .....	Norway .....
8931	Bradley Fertilizer Co .....	Boston, Mass .....	Portland .....
8934	N. W. Fertilizer Co .....	Chicago, Ill .....	Portland .....
8935	The Armour Fertilizer Works..	Chicago, Ill .....	Portland .....
9017	Sagadahoc Fertilizer Co .....	Bowdoinham .....	Bowdoinham .....



## ANALYSES—Concluded.

Name of Feed.	PROTEIN.		FAT.		Station number.
	Found — per cent.	Guaranteed — per cent.	Found — per cent.	Guaranteed — per cent.	
Purity Mixed Feed .....	10.88	No guar.	3.51	No guar.	8927
Purity Mixed Feed .....	11.13	No guar.	3.62	No guar.	8936
Purity Mixed Feed .....	12.63	No guar.	4.15	No guar.	8969
Purity Mixed Feed .....	12.25	No guar.	4.16	No guar.	8970
Purity Mixed Feed .....	12.19	No guar.	3.14	No guar.	8973
Purity Mixed Feed .....	12.63	No guar.	3.93	No guar.	9023
Purity Mixed Feed .....	12.63	No guar.	4.14	No guar.	9024
Purity Mixed Feed .....	12.75	No guar.	3.98	No guar.	9025
Purity Mixed Feed .....	12.13	No guar.	4.45	No guar.	9049
Crown Fancy Winter Wh't Mixed Feed	12.13	No guar.	4.48	No guar.	8877
Crown Fancy Winter Wh't Mixed Feed	12.25	No guar.	3.81	No guar.	8878
Crown Fancy Winter Wh't Mixed Feed	12.19	No guar.	4.19	No guar.	8929
Crown Fancy Winter Wh't Mixed Feed	12.00	No guar.	3.22	No guar.	8966
Crown Fancy Winter Wh't Mixed Feed	12.06	No guar.	4.02	No guar.	8967
Crown Fancy Winter Wh't Mixed Feed	11.44	No guar.	3.98	No guar.	8968
Kentucky Mixed Feed.....	9.13	11.00	4.28	No guar.	8886
Kentucky Mixed Feed.....	13.50	No guar.	4.08	No guar.	8971
Kentucky Mixed Feed.....	11.88	No guar.	3.25	No guar.	9027
Kentucky Mixed Feed.....	13.00	No guar.	3.58	No guar.	9028
Mixed Feed. . . . .	12.50	No guar.	3.52	No guar.	9026
Bowker's Animal Meal.....	39.75	30.00	10.63	5.00	8889
Bowker's Animal Meal.....	47.63	30.00	9.10	5.00	8932
Bowker's Beef Scraps .....	48.56	30.00	16.95	20.00	8933
Bowker's Ground Beef Scraps.....	56.00	60.00	18.94	14.00	9016
Bradley's Superior Meat Meal. ....	48.75	40.00	9.93	15.00	8931
Horse Shoe Brand Gr'd Beef Cracklings	64.63	60.00	18.26	16.00	8934
Meat Meal for Poultry.....	58.88	60.00	17.60	16.00	8935
Raw Ground Bone Meal .....	27.94	18.75	2.44	No guar.	9017



## SUMMARY OF ANALYSES.

	Number of analyses.		PROTEIN.		FAT.	
			Found— per cent.	Guaranteed— per cent.	Found— per cent.	Guaranteed— per cent.
Chapin & Co.'s Cotton Seed Meal.	16	Highest Lowest Average	47.75 41.69 45.09	..... 43.00 .....	16.52 8.95 11.32	9.00
The American Cotton Oil Co.'s Prime Cotton Seed Meal.	5	Highest Lowest Average	47.63 43.38 45.40	..... 43.00 .....	12.03 8.48 10.02	9.00
F. W. Brod <sup>e</sup> & Co.'s Owl Brand Pure Cotton Seed Meal.	4	Highest Lowest Average	49.13 46.19 48.02	..... 43.00 .....	14.34 9.04 11.37	9.00
E. B. Williams & Co.'s Daisy Brand Cotton Seed Meal.	11	Highest Lowest Average	47.69 44.19 46.11	..... 43.00 .....	12.57 8.21 9.71	9.00
The Southern Cotton Oil Co.'s Prime Finely Ground Cotton Seed Meal.	2	Highest Lowest Average	47.25 46.19 46.72	..... 43.00 .....	10.17 9.28 9.73	9.00
Butler Breed Co.'s Cotton Seed Meal.	1	....	45.50	43.00	11.30	9.00
Paris Flouring Co.'s Prime Memphis Cotton Seed Meal.	1	.....	45.38	43.00	10.12	9.00
Humphreys, Goodwin & Co.'s Dixie Brand Cotton Seed Meal.	2	Highest Lowest Average	44.75 44.13 44.44	..... 43.00 .....	9.67 8.33 9.00	9.00
J. E. Soper & Co.'s Cotton Seed Meal.	7	Highest Lowest Average	45.19 42.50 44.17	..... 43.00 .....	12.72 8.69 10.05	9.00
Manufacturer unknown Cotton Seed Meal.	2	Highest Lowest Average	45.44 45.06 45.25	..... ..... .....	14.05 12.37 13.21	
S. A. & J. H. True Co.'s Prime Cotton Seed Meal.	4	Highest Lowest Average	25.63 22.19 23.89	..... 43.00 .....	8.11 7.14 7.71	9.00
Manufacturer unknown Cotton Seed Meal.	3	Highest Lowest Average	27.13 25.63 25.40	..... ..... .....	7.99 6.91 7.45	
The Glucose Sugar Refin'g Co.'s Chicago Gluten Meal.	24	Highest Lowest Average	39.75 32.94 35.73	38.00 34.2 .....	4.83 2.58 3.80	3.75 2.00
Chas. Pope Glucose Co.'s Cream Gluten Meal.	6	Highest Lowest Average	34.19 32.13 32.78	..... 34.12 .....	3.29 1.13 2.10	3.20
National Starch Manf'g Co.'s King Gluten Meal.	9	Highest Lowest Average	38.44 30.44 34.40	..... 32.00 .....	12.39 2.04 4.65	16.00

## SUMMARY OF ANALYSES—Continued.

	Number of analyses.		PROTEIN.		FAT.	
			Found— per cent.	Guaranteed— per cent.	Found— per cent.	Guaranteed— per cent.
The Glucose Sugar Refin'g Co.'s Diamond Gluten Feed.	1	.....	26.25	26.20	2.47	2.70
C. B. Cummins & Son's Gluten Feed.	1	.....	27.19	26.00	4.13	4.00
Manger L. O. Co.'s Linseed Oil Meal.	1	.....	35.38	39.00	7.65	1.50
S. A. & J. H. True Co.'s Linseed Oil Meal.	1	.....	29.94	30.00	6.94	7.00
S. A. & J. H. True Co.'s Linseed Oil Meal.	1	.....	32.56	36.94	6.15	6.58
Mayflower Mills' Oil Process Oil Meal.	1	.....	18.88	19.00	6.95	7.00
The American Linseed Co.'s Linseed Meal.	1	.. ..	38.69	38.00	2.90	3.00
The Cleveland Linseed Oil Co.'s Cleveland Flax Meal.	1		38.50	39.00	2.68	1.50
Cleveland Linseed Oil Co.'s Cleveland Linseed Oil Meal.	3	Highest Lowest Average	39.69 36.75 37.77	..... 39.00 .....	2.87 2.23 2.56	1.50
Manufacturer Unknown Linseed Oil Meal.	3	Highest Lowest Average	37.69 37.50 37.58	..... 38.00 .....	2.71 2.57 2.64	1.00
Manufacturer Unknown Unguaranteed Linseed Oil Meal.	1	.....	39.00	.....	2.83	
The American Cereal Co.'s Victor Corn and Oat Feed.	11	Highest Lowest Average	9.75 8.13 8.83	9.46 8.23 .....	4.67 3.08 3.73	3.92 3.00
The H-O Co.'s Dundee Corn and Oat Feed.	1	....	8.13	8.38	2.70	2.95
Dock & Coal Co.'s Dandy Corn and Oat Feed.	1	.....	9.13	.....	4.77	
S. A. & J. H. True Co.'s Corn and Oat Feed.	1	.....	7.50	9.63	3.27	4.23
Manufacturer Unknown Oat Crop.	1	.....	9.13	8.00	4.55	5.00
The American Cereal Co.'s Quaker Oat Feed.	2	Highest Lowest Average	13.38 10.06 11.72	..... 12.03 .....	3.11 2.68 2.89	3.49
W. H. Haskell & Co.'s Oat Feed.	1	.....	9.50	9.62	4.82	7.60
The H-O Co.'s Dairy Feed.	1	.....	16.63	18.00	4.82	4.50

## SUMMARY OF ANALYSES—Concluded.

	Number of analyses.		PROTEIN.		FAT.	
			Found— per cent.	Guaranteed— per cent.	Found— per cent.	Guaranteed— per cent.
The American Cereal Co.'s Quaker Dairy Feed.	6	Highest Lowest Average	14.50 13.00 13.92	..... 12.03 .....	4.12 2.79 3.32	3.49 2.50
The American Cereal Co.'s American Poultry Food.	2	Highest Lowest Average	13.69 12.69 13.19	..... 13.96 .....	6.22 5.52 5.87	5.49
Manufacturer Unknown Rice Feed.	1	.....	8.75	.....	9.03	
Manufacturer Unknown Purity Mixed Feed.	13	Highest Lowest Average	12.75 10.56 11.90	..... ..... .....	4.45 3.14 3.94	
The Doten Grain Co.'s Crown Fancy Winter Wheat Mixed Feed.	6	Highest Lowest Average	12.25 11.44 12.01	..... ..... .....	4.48 3.22 3.95	
Manufacturer Unknown Kentucky Mixed Feed.	4	Highest Lowest Average	13.50 9.13 11.88	..... 11.00 .....	4.28 3.25 3.80	
Manufacturer Unknown Mixed Feed.	1	.....	12.50	.....	3.52	
The Bowker Co.'s Bowker's Animal Meal.	2	Highest Lowest Average	47.63 39.75 43.69	..... 30.00 .....	10.63 9.10 9.87	5.00
The Bowker Co.'s Bowker's Beef Scraps.	1	.....	48.56	30.00	16.95	20
The Bowker Co.'s Bowker's Ground Beef Scraps.	1	.....	56.00	60.00	18.94	14.00
Bradley Fertilizer Co.'s Bradley's Superior Meat Meal	1	.....	48.75	40.00	9.93	15.00
N. W. Fertilizer Co.'s Horse Shoe Brand Ground Beef Cracklings.	1	.....	64.63	60.00	15.26	16.00
The Armour Fertilizer Co.'s Meat Meal for Poultry.	1	.....	58.88	60.00	17.60	16.00
Sagadahoc Fertilizer Co.'s Raw Ground Bone Meal.	1	.....	27.94	18.75	2.44	

## VIOLATION OF THE LAW.

Two samples of high grade *unguaranteed* cottonseed meal are reported. Sample 8850 was sent by a correspondent and 8896 was taken by the inspector. Both samples came from the same car. The violation was reported to the Secretary of Agriculture.

Seven samples of low grade cottonseed meal are reported. Samples 8866, 8872, 8880 and 8902, bearing the guarantee of S. A. & J. H. True Company, were, in accordance with the statement of that firm, all from one car. Three of the four samples were from correspondents and the other was drawn by the inspector. The violation was reported to the Secretary of Agriculture. The firm say that this "was purchased for the best of meal and this is what we obtained."

Sample 8871 was sent by a correspondent and was drawn from goods sold by S. W. Hamilton. Sample 8903 and 8916 were taken by the inspector at the request of the dealers in order that they might put a proper guarantee upon them.

All of the recent shipments of Chicago Gluten Meal are up to guarantee, 38 per cent of protein and 2 per cent fat. The goods shipped into the State in the summer of 1899 were below this guarantee, and the State agents of the manufacturers have supplied correctly guaranteed tags for the old goods.

King Gluten Meal varies greatly in composition, that low in fat more nearly resembles Chicago Gluten. As the high percentage of fat called for by the guarantee is of doubtful advantage and its absence is always accompanied by higher protein content, the falling off in fat in these samples has not been reported.

The unguaranteed sample (9012) of oil meal is from high grade goods. The firm was reported to the Secretary of Agriculture for not branding.

The unguaranteed Daisy Corn and Oat Feed (8926) was reported to the Secretary of Agriculture. One old lot of American Poultry Food was not guaranteed. All late shipments are guaranteed.



## MIXED FEEDS.

In section 3 of the feeding stuffs law, it is stated that "mixed feeds" come under the requirements of the law. Under section 2, however, an exception is made of wheat rye and buckwheat bran or middlings not mixed with other substances. Soon after the law went into effect the Station analyzed a large number of the wheat offals which were being sold in the State and found them to be practically all good goods, although many of them were branded "mixed feed" and would therefore come under the law. After consultation with the Secretary of the Board of Agriculture it was decided for the present to omit all wheat offals from the requirements even though they might be denominated mixed feed.

In the fall of 1899 the Station began to receive from correspondents samples of goods that were bought for bran, but were of very low grade carrying from 9 to 12 per cent protein instead of the 15 to 17 per cent that good bran ought to carry. Investigation brought out the fact that certain mills in Kentucky and Tennessee and perhaps in other sections as well were adulterating bran by grinding and mixing with it such materials as corn cobs, the waste from corn broom factories, and the like.

In the present bulletin there are given twenty-four analyses of four brands of these mixed feeds which carry a much lower percentage of protein than brans should. The handlers of these particular brands are at the present time placing guarantees and tax tags upon them. In view of the fact that these adulterations make it necessary for the Station to examine all mixed feeds in order to see whether they are straight wheat offals or not, it has been decided that from this time on the strict letter of the law will be observed, and that the only concentrated feeds which will not be subject to the requirements are the meals made from pure grains and wheat, rye and buckwheat brans or middlings.

All mixed feeds, even though they are the straight refuse from the milling of wheat, will be hereafter included in the requirements and it will be necessary for these goods to carry the brand, as defined in section 1 and the inspection tax tags, as defined in section 5 of the feeding stuffs law, chapter 334, Public Acts of 1897.